

CLAIMS

What is claimed is:

1. A method for data modulation comprising:

transmitting lines of data on a screen, said lines comprising at least one of at

least two different colors; and

modulating said data as a function of a period of time between consecutive transitions between two different colors.

2. The method according to claim 1 wherein said modulating comprises modulating said data as a function of a period of time between consecutive transitions between two different colors on different lines.

3. The method according to claim 1 wherein said modulating comprises modulating said data as a function of a period of time between consecutive transitions between two different colors on the same line.

4. The method according to claim 3 wherein said modulating comprises encoding one-bit per line of data.

5. The method according to claim 3 wherein said modulating comprises encoding more than one-bit per line of data.

6. The method according to claim 4 wherein said encoding comprises providing a first segment of a first color on one side of the line and providing a second segment of said first color separated from said first segment by a second color.

7. The method according to claim 5 wherein said encoding comprises modulating said data in relation to at least one of horizontal and vertical blanking of said lines of data.

8. The method according to claim 7 wherein said encoding comprises transmitting no information during vertical blanking, and transmitting a preamble on a beginning of data in a new field.

9. The method according to claim 7 wherein said encoding comprises, during
5 horizontal blanking, representing a one bit with a first time interval between two segments of color and representing a zero bit with a second time interval between two segments of color.

10. The method according to claim 1 wherein said modulating comprises forming a preamble adapted to differentiate said data transmitted on said screen from another portion
10 of said screen.

11. The method according to claim 10 wherein said modulating comprises forming said preamble with lines of at least two different colors.

12. The method according to claim 11 wherein said modulating comprises forming said preamble with white and black lines, wherein an average value of said preamble is at least close to halfway between black and white gray levels.

13. The method according to claim 11 wherein said modulating comprises forming said preamble with white and black lines, wherein said preamble comprises a distance of a predefined number of lines between a predefined number of transitions between black and white.

14. The method according to claim 13 wherein said modulating comprises
20 representing a zero bit with a black-white segment.

15. The method according to claim 13 wherein said modulating comprises representing a one bit with a black-black-white segment.

16. The method according to claim 13 wherein said modulating comprises representing a one bit with a white-black-white segment.

17. The method according to claim 1 wherein said modulating comprises video-editing full frames of said data comprising both odd and even lines of said data.

5 18. The method according to claim 1 wherein said modulating comprises video-editing said data comprising at least one of odd and even lines of said data.

19. The method according to claim 18 and further comprising presenting said data in fields comprising at least one of odd-lines fields and even-lines fields.

20. The method according to claim 18 and comprising separating odd-lines fields and even-lines fields of said data.

10 21. The method according to claim 1 and further comprising decoding said data that has been modulated.

22. The method according to claim 21 wherein said modulating comprises forming a preamble adapted to differentiate said data transmitted on said screen from another portion of said screen, and wherein said decoding comprises:

clearing two variables;

waiting for an input of an interval; and

if said interval is shorter than a predefined period, keeping said two variables cleared, and if said interval is longer than said predefined period, then said data comprises
20 said preamble.

23. The method according to claim 22 wherein said decoding further comprises:

waiting for an input of a new interval; and

comparing said new interval with predefined limits to define a legal interval.

24. The method according to claim 23 wherein said legal interval comprises a legal "zero" interval having a first predefined duration and a legal "one" interval having a second predefined duration.

25. The method according to claim 11 wherein said modulating further comprises adding at least one of error detection bits and error correction bits to said preamble.

26. The method according to claim 11 wherein said modulating further comprises adding a toggle bit to said preamble, wherein said toggle bit is adapted to be toggled between one and zero.

27. The method according to claim 1 wherein said modulating comprises integrating a coupon into a television (TV) advertisement campaign, said coupon being viewable on-screen during a TV commercial.

28. The method according to claim 1 wherein said transmitting comprises transmitting an information key that provides access to a hidden feature of a receiver used to receive said data.

29. A method for data modulation comprising:
integrating a coupon into a television (TV) advertisement campaign, said coupon being viewable on a TV screen during a TV commercial and receivable from said screen by a viewer.

30. The method according to claim 29 and further comprising inserting in said coupon a "get ready" prompt adapted to let a viewer know that said coupon is about to be shown on said screen.

31. The method according to claim 29 and further comprising downloading said coupon to a download device.

32. The method according to claim 31 wherein said downloading comprises downloading said coupon to a smart card.

33. The method according to claim 31 and further comprising transferring data from said download device to at least one of a Point-Of-Sale (POS) device and a data kiosk.

34. The method according to claim 29 and further comprising issuing interactive commands with said coupon.

35. A method for data modulation comprising:

transmitting data on non-interactive television; and

modulating at least a portion of said data to permit a viewer to interact with data.

36. The method according to claim 35 wherein said transmitting comprises transmitting data associated with a TV commercial.

37. The method according to claim 35 wherein said transmitting comprises transmitting an information key that provides access to a hidden feature of a receiver used to receive said data.